



A COMPARATIVE STUDY ON EFFECT OF AYURVEDA COMPOUND, ANTACIDS AND DIETARY THERAPY IN MANAGEMENT OF AMLAPITTA

Sudhakar Reddy P^{1*}, Ashok P.K², Shenoy K.T.³

¹Professor, Department of Swasthavritta, JSS Ayurveda Medical College, Mysore, India

²Principal, Government Ayurveda College, Tiruvananthapuram, India

³Rtd. Professor and HOD, Department of Medical Gastroenterology, Medical College Hospital, Thiruvananthapuram, India

*Corresponding Author Email: drpsreddy05@yahoo.com

DOI: 10.7897/2277-4572.031114

Published by Moksha Publishing House. Website www.mokshaph.com

All rights reserved.

Received on: 26/12/13 Revised on: 19/01/14 Accepted on: 03/02/14

ABSTRACT

Amlapitta is a disease of the major digestive disorder commonly being met by Ayurveda physicians. In this condition though signs and symptoms are vague, the patient will be affected physically, occasionally some psychological symptoms also will be associated. A series of whole digestive system malfunctions such as anorexia, nausea, acid eructation, heart burn etc. Are seen at the physical level, though the aetiological factors like indulgence of incompatible food, irregular food intake, and excessive fried foods are responsible for the origin of the disease. Alcohol, smoking and stress are also not an exception. Attempt has been made to treat the condition from its root cause by using a dietary therapy and find out a cheap and easily available Ayurveda compound and Antacids. 60 numbers of patients having of acid eructation, heart burn, Belching, abdominal fullness, constipation, nausea with negative endoscopy results were selected and randomized in to three groups A, B, C, administered Ayurveda Compound, Antacids and Dietary therapy respectively and results were analysed by comparing relief of symptoms during the trial period, percentage of reoccurrence of symptoms during and after trial period, compliance and complications in between groups.

Keywords: Amlapitta, NUD, Dietary therapy, Antacids, Ayurveda compound

INTRODUCTION

Increasing modern food technology and advancement of civilization are taking people to change life style and causing 50 % gastrointestinal disorders. Most of the gastrointestinal disorders are owing to results from abnormal functioning of the Agni (digestive fire), faulty dietary habits like excessive intake of pungent, spicy food, irregular meals pattern and habits like smoking, alcohol, psychological stress. Non-Ulcer Dyspepsia (NUD) is disease commonly seen in general practice. NUD affects at least 15 % of population as a whole.¹⁻³ This syndrome is characterized by anorexia, abdominal discomfort, acid eructation, heart burn, nausea, constipation, etc. Even though these signs and symptoms are vague, the patient will be affected physically, occasionally some psychological symptoms also will be associated. Ayurveda recognizes this condition is one of the major digestive disorders like Amlapitta, vidagdhaajeerna and also recognizes etiological factors like indulgence of incompatible food, irregular food habits and excessive fried foods are responsible for the origin of the disease⁴. As per concerned modern medical knowledge it is a type of Acid Peptic Disease, in the treatment aspect any therapy which normalises the acid level in the GIT found to be beneficial. H2 antagonists, antiulcer drugs, liquid antacids are administered for the relief of symptoms of NUD. However Ayurveda has a different approach, Ayurveda and Modern medicine have got their own fundamental principles, their own line of approach. A critical study on this regard showed that most of the symptoms of NUD and Amlapitta, vidagdhaajeerna are due to impairment of Agni. For the management, Ayurvedic compound and dietary therapy which are used here is supposed to stimulate the jatharagni by removing the saamaavastha (undigested state) of annarasa (food essence). Besides use of medicines, Ayurveda lays a very great emphasis on pathya – apathya i.e. regulation of diet and other regimen in diseases. It is to that extent that the

acharyas says “If a man uses Pathya (Wholesome food) there is no need of medicine, and if the patients does not observe pathya and indulges in apathya the medicine will not act⁵. Hence it may be said that the treatment can be carried out only by regulated wholesome diet and regimen without the use of medicine. With these back ground the present study has been undertaken to find out efficacy of an Ayurveda compound, Antacids and Dietary therapy in relieving symptoms and preventing reoccurrence of symptoms of Amlapitta.

MATERIALS AND METHODS

The present study was carried out with the patients suffering from Amlapitta (Non- Ulcer dyspepsia), selected from Swasthavritta OPD, Govt. Ayurveda College, poojappura, Thiruvanthapuram, India and Medical Gastroenterology Clinic, Medical college hospital Thiruvanthapuram, India. Patients were investigated as an outdoor patient. Endoscopy was done to rule out any lesions in the gastrointestinal tract, the patients had negative endoscopy findings and those who were willing to participate in the study were selected.

Population

60 patients selected for the study were randomised in to group A, group B, and group C, Group A received the Ayurveda compound, Group B was taken as control and Antacids were given and Group C was treated with dietary therapy.

Selection criteria

Inclusion criteria

- Indigestion
- Belching
- Acid eructation
- Abdominal fullness

- Heart burn
- Burning sensation in throat
- Nausea / vomiting
- Constipation / diarrhoea
- Age 15 years to 50 years
- No sex discrimination
- Negative endoscopy findings

Exclusion criteria

- Age below 15 years and 50 years
- Duodenal Ulcers
- IBS ,gastritis
- Metabolic disorders
- Hapato-biliary pancreatic disease
- Pregnancy
- Patients who are underwent surgery for GIT lesions.
- Patients who are not willing to participate in the study
- Patients who are taking anti motility drugs.

Research techniques and tools for the study

Investigator selected the comparative study. The patients selected for clinical trial were thoroughly examined both subjectively and objectively, routine examination of blood, urine stool etc. were done. Endoscopy was done to exclude other pathology. An interview was conducted to grade the baseline symptoms in order of severity. The improvement of the following cardinal symptoms was taken for the assessment.

- Acid eructation
- Heart burn
- Abdominal fullness
- Constipation/diarrhoea
- Nausea/vomiting
- Anorexia

Out of that, Acid eructation and Heart burn were given more importance. Patients were asked to fill up the assessment card (daily diary card) and they were asked to visit the OPD clinics every week.

Assessment

Assessment of subjective symptoms was done by comparing the difference in severity of symptoms between groups. Assessment card (daily dairy card) contains name, age, sex, weeks number, two chief complaints Acid Eructation and Heart burn were analysed by using the assessment card by asking the patients to fill up the number of attacks of these symptoms. The total number of attacks in every week compared between groups and analysed.

Treatment schedule

After selecting patients according to inclusion criteria; Group A was administered Ayurveda compound which contains powder of Guduchi (*Tinospora cordifolia*), Nimba (*Azadiracta indica*), Patola (*Trichosanthes dioica*) Vibheetaki (*Terminalia bellerica*), Haritaki (*Terminalia chebula*) and Amalaki (*Eblica officinalis*)⁶. The dose was 5 g twice daily

for 4weeks with honey or ghee as anupana. Group B was given liquid antacids containing aluminium hydroxide and magnesium trisilicate⁷ in the dose of 15 ml 4 times a day for 4 weeks. Group C were asked to follow strict diet and other regimen by supplying specially prepared diet chart. The diet chart has been prepared on the basis of Ayurveda classics⁸ and such a manner that every common man can prepare in his limited economic conditions. The diet chart contains the time to take food, item of food to be taken and things to be avoided. (Table 1)

Analysis

Data analysis was carried out for description of study variables such as age, sex, and basal symptoms. The effect of each modality was evaluated between basal and 1, 2, 3, 4 weeks of treatment using non- parametric test- wilcoxon signed rank test, similarly between groups of treatment, data was analysed by using –Mann – Whitney test for cardinal symptoms (acid eructation and heart burn). Other symptoms were evaluated by degree of association (Chi square test), Recurrent of symptoms were evaluated by proportions. Compliance to treatment was recorded in every week and calculated as percentages.

Observations and Analysis

Major characteristics in our study were the randomization was adequate and baseline data was also suitable. It was field that maximum (80 %) patients were males and maximum (66.6 %) patients were in the age group between 25-45 years. non- vegetarians were 60 %, smoking were 75 % and pungent spicy food were 62 %. Response of treatment in the three groups as showed that, there was significant relief in acids eructation and heart burn during the trial period ($P < 0.001$). Between groups the results showed Antacid group Vs Dietary therapy is significant in relieving symptoms at 1, 2 weeks but equally effective 3, 4 week with Ayurveda compound (Table 2). In relieving other symptoms Indigestion, Belching and Nausea/Vomiting three modalities are having equivalent effect, in relieving abdominal fullness Ayurveda compound is having more significant effect than dietary therapy and antacid, in relieving constipation Ayurveda compound and dietary therapy having more effect than antacids (Table 3). Based on our results all three therapeutic modalities i.e., Ayurveda compound, antacids and dietary therapy are having equivalent effect in relieving symptoms of Amlapitta. These results could be due to small sample size and effect would have been different if we undertake large sample size and prolonged duration of treatment may yield a different result. While observing the percentage of recurrence of symptoms at following weeks it can be said that to prevent recurrent episodes of symptoms of Amlapitta (NUD) Ayurveda treatment and dietary therapy are having more significant effect than antacids (Table 4). The higher compliance to treatment was noted in Antacid group 100 %, Ayurveda compound 94 % and 83.3 % in dietary therapy. No side effects and complications were noted in Ayurveda group. Only constipation was noted as side effect in antacid group. General weakness was noted as side effect in diet group.

Table 1: Dietary therapy in management of Amlapitta (NUD)

| | |
|-----------------------|--|
| 7 AM | Fruit juice of Ash guard (250 g) |
| 8 AM | Wheat chapatti, idiappam andputtu (steamed rice preparations) either one of the this with sugar or vegetable curry prepared using salt, coconut and soaked green gram + one glass milk |
| 1 PM | 160 g rice should be cooked and taken with vegetable curry and butter milk |
| 4 PM | Raw vegetables – tender cucumber carrot, tomato, etc. |
| 8 PM | Use kanji prepared by 50 g rice and tomato etc. |
| Preferable vegetables | Bitter guard, drumstick, carrot, ash guard, tomato, ladies finger, cucumber, white guard etc. |
| To drink | Tender coconut water, butter milk, water with honey or jeera water |
| Avoid | Spicy food, excessive chilli, salt, pickles, potato, lemon, tamarind, fermented food, tea, coffee, smoking, alcohol, worry, day sleep etc. |

Table 2: Between Groups treatment effects

| Groups | Symptom | W1 | W2 | W3 | W4 |
|--|-----------------|-----------------------|-----------------------|------------------------|------------------------|
| (B) Antacids Vs (A) Ayurvedic compound | Acid eructation | Z = -1.79 P = .239 | Z = -1.79 P = .070 | Z = -1.553 P = .42 | Z = -1.557 P = .058 |
| | Heart burn | Z = -1.27 P = .272 | Z = -1.69 P = .080 | Z = -2.58 P = 0.12 | Z = -2.58 P = .078 |
| (B)Antacids Vs (C) dietary therapy | Acid eructation | Z = -1.90 P = .056 | Z = .152 P = .879 | Z = .3001 P = .764 | Z = -0.31 P = .010 |
| | Heart burn | Z = -1.80 P = .50 | Z = -1.667 P = .40 | Z = .001 P = 0.20 | Z = -0.38 P = .020 |
| (C) dietary therapy Vs (A) Ayurveda compound | Acid eructation | Z = 2.41 P = .016 | Z = 2.42 P = .05 | Z = -1.414 P = .152 | Z = -1.08 P = .272 |
| | Heart burn | Z = 2.20 P = .15 | Z = -2.50 P = .04 | Z = 1.51 P = 0.67 | Z = -1.08 P = .618 |

Table 3: Comparison of percentage of relief in other symptoms in three groups

| Group | Indigestion | Belching | Abdominal fullness | Anorexia | Nausea | Constipation |
|--------|-------------|----------|--------------------|-----------|---------|--------------|
| B vs A | P = .50 | P = .60 | P = 2.82 | P = 0.342 | P = .45 | P = 2.54 |
| B vs C | P = .37 | P = .044 | P = 1.15 | P = 2.54 | P = .25 | P = 2.69 |
| A vs C | P = .14 | P = .47 | P = .16 | P = 0.16 | P = .15 | P = .50 |

Table 4: Percentage of reoccurrence of symptoms at follow up weeks

| | AE | HB | IND | BEL | ABDF | BT | ANO | NAUV | CNP |
|---------|------|------|------|------|------|------|------|------|------|
| Group a | 10 % | 5 % | 8 % | 5 % | 6 % | 7 % | 6 % | - | - |
| Group b | 40 % | 35 % | 45 % | 48 % | 28 % | 26 % | 30 % | - | 40 % |
| Group c | 20 % | 20 % | 10 % | 7 % | 6 % | 5 % | 4 % | - | 10 % |

AE- acid eructation, HB-heart burn, IND-indigestion BEL-belching, ABDF –abdominal fullness, BT- burning throat, ANO-anorexia
NAUN- nausea and vomiting, CNP- constipation

DISCUSSION

Ayurveda believes all the diseases are arises from abnormal functioning of Agni, this leads to formation of ama, undigested food, which becomes pathogen in the body, breeding toxins and upsetting the autoimmune system. Most of the GIT diseases are owing to result from abnormal functioning of Agni, faulty dietary habits like excessive intake of pungent, spicy foods, irregular meal pattern and smoking, alcohol and psychological stress etc., Amlapitta is a common disease which met to all general practitioners and results from indulgence of incompatible food habits. Samprapti ghatkas of amlapitta includes annavaha sroto dushti, agnimandya and sama pitta. In this regard the aim of the treatment should be supposed to stimulate the jatharagni by removing the sama stage of annarasa. Besides treating these disorders as asymptomatic, there is a great necessity to remove the root cause (nidana parivarjanam) by correcting dietetic factors, changing lifestyle and by improving awareness towards pathya- apathya described in Ayurveda. With this back ground the present study has been conducted to evaluate the efficacy of dietary therapy, Ayurveda compound and antacids in the management of amlapitta. 60 patients suffering from symptoms of amlapitta and having negative endoscopy were selected and divided in to three groups to receive Ayurveda compound, antacids and dietary therapy. Group A was administered Ayurveda compound which contained powder of Guduchi, Nimba, Patola,

Amalaki, vibheetaki and hareethaki in the dose of 5 g twice daily for 4 weeks with honey or ghee as anupana. Group B was given liquid antacids containing aluminium hydroxide and magnesium silicate in the dose of 15 ml 4 times daily for weeks. While Group C were asked to follow strict diet and other regimens by supplying specially prepared diet chart. The diet chart has been prepared on the basis of pathya-apathya mentioned in bhaishajya ratnavali. Response of treatment in three groups showed that there was significant relief of acid eructation and heart burn during the trial period ($p < 0.0001$). Between groups the results showed antacid group vs. Ayurveda group test is not significant, antacids vs. dietary therapy test is significant at 1, 2 weeks and not significant at 3, 4 weeks. Dietary therapy is not having more significant in relieving symptoms at 1, 2 weeks, but equally effective at 3, 4 weeks with Ayurveda compound. This may be due to the prime factor kala (time) taken by the dietary therapy to bring normal stage of Agni and ama pachana. In relieving other symptoms indigestion, belching and nausea, three modalities are having equivalent effect. In relieving abdominal fullness Ayurveda compound is having more significant than antacids and dietary therapy. In relieving anorexia dietary therapy is having more significant. In relieving constipation Ayurveda compound and dietary therapy are having more effect than antacids. Based on the above results all three therapeutic modalities are having equivalent effect in relieving symptoms of amlapitta. These

results could be due to small sample size and effect would have been different if we undertake large sample size and prolonged duration of treatment may yield different result. While observing the percentage of reoccurrence of symptoms at follow-up weeks, it can be said that to prevent recurrent episodes of symptoms of Amlapitta Ayurveda compound and dietary therapy are having more significant than antacids. The higher compliance to treatment was noted in antacid Group 100 %, Ayurveda compound 94 % and dietary therapy 83.3 %. No side effects and complications were noted in Ayurveda group. Only constipation was noted as a side effect in antacid group. General weakness was noted as a side effect in dietary group, this may be due to sudden change in diet pattern. No complications were noted in any treatment modality. From above discussion it can be conclude as Ayurveda compound and Dietary therapy can apply safely in Amlapitta to overcome long term allopathic drug side effects and complications. Combined therapy of Ayurveda and dietary therapy may give significant results.

CONCLUSION

The present study leads to the following conclusions:

- Restoration of the pathological factors like Angnimandya (decreased digestive capacity), Ama (undigested food) to the normal stage helped in the treatment of Amlapitta (NUD).
 - Awareness of Pathya – Apathya (dietetics in disease) can prevent Amlapitta (NUD).
- While observing the results majority of symptoms were having equivalent effect in every week in the three therapeutic modalities. This result of the study would be due to small size or could be true value.
 - While observing follow-up study it can be said that Ayurveda and dietary therapy can be prevent Amlapitta (NUD). These therapies can be applied safely to overcome long term allopathic drug side effects and complications

REFERENCES

1. Christopher RW. Edwards and Ian AD. Boucher, Davidson's principles and practice of medicine -16th edition, diseases of alimentary tract and pancreas; 1991. p. 442.
2. Harrison's principles of internal medicine, published by MC gram hill New Delhi; 1972. p. 567.
3. Balakrishnan V. Common problems in gastroenterology. Jaypee brothers, New Delhi, p. 23.
4. Srikantha Murthy KR, Madhana Nidana, Amlapitta Nidanam, Chaukhamba orientalis, Varanasi, second edition; 1995. p. 166.
5. Indradev Tripathi, Lolmba Raja's Vaidyajivanam, prathama vilasa, chaukhamba orientalis, Varanasi; 1995. p. 4.
6. Brahma sankara misra, Bhaisajyaratnavali of govinda dasji voll iii-vidyodini Hindi Commentary, amlapitta prakarana- chaukhamba Sanskrit samsthan Varanasi; 1982. p. 116.
7. Harrison's principles of internal medicine, published by MC gram hill New Delhi; 1972. p. 567.
8. Brahma sankara misra, Bhaisajyaratnavali of govinda dasji voll iii-vidyodini Hindi Commentary, amlapitta prakarana- chaukhamba Sanskrit samsthan, Varanasi; p. 137 g

Source of support: Nil, Conflict of interest: None Declared

| | |
|---|--|
| QUICK RESPONSE CODE  | ISSN (Online) : 2277 -4572 |
| | Website http://www.jpsionline.com |

How to cite this article:

Sudhakar Reddy P, Ashok P.K, Shenoy K.T. A comparative study on effect of Ayurveda compound, antacids and dietary therapy in management of Amlapitta. *J Pharm Sci Innov.* 2014;3(1):91-94 <http://dx.doi.org/10.7897/2277-4572.031114>